

REMARKS

General remarks

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-9 are all the claims pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter. Further, Applicant submits that the claim amendments to claims 1 and 2 should be entered because the subject matter has already been searched and considered vis-à-vis claim 7.

Rejection under 35 U.S.C. §103(a)

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Lu et al. in view of Chawla et al. Of these rejected claims, there are three independent claims: 1, 2, and 7. Applicant respectfully traverses the 35 U.S.C. § 103 rejections, as set forth below.

Claim 1 patentably distinguishes over the combined teachings of Lu and Chawla in view of its requirement that

said base station comprises means for continuously sending a message indicating to said corporate radio terminals the amount of resources they are allocated

Claim 2 patentably distinguishes over the combined teachings of the applied references in view of its requirement for

means for sending messages to said base station comprising the amount of resources allocated to each of said corporate radio terminal, wherein said base station continuously sends a message which indicates to each of said corporate radio terminals the amount of resources it is allocated

Claim 7 patentably distinguishes over Lu and Chawla, in combination, in view of its requirement for

base station adapted to be coupled to a private branch exchange comprising a module for sending messages to corporate radio terminals under the range of said base station continuously indicating the amount of resources each of said corporate radio terminal is allocated

From the foregoing, the Examiner will note some similarities among the independent claims. Therefore, Applicant first discusses the rejection in terms of independent claim 7, but respectfully submits that the remarks can be understood to apply by analogy to independent claims 1 and 2 as well.

The rejection of independent claim 7

Overview notes: As an initial matter, Applicant points out that, in a system that comports with all the requirements of independent claim 7, several advantages exist. Applicant understands that not all of the points that are about to be highlighted are included in the express language of the claims, but Applicant provides the following discussion so that the Examiner can more readily appreciate Applicant's later comments that are focused on the claim language.

In particular, the PBX is able to control the amount of resources allocated to the corporate radio terminals. This capacity to control the amount of resources extends beyond just the simple kind of control of native/non-native handsets such as is mentioned in Lu, col. 18:

45 In one embodiment, hybrid network 500 is further furnished with control circuits to control the sharing of resources, e.g., radio bandwidth resources, TRAU resources, trunk resources (for example, E1), or the like, between native MS units and non-native handsets. In one embodiment, non-native handsets can only use the private
50 hybrid cPBX resources as a BSS when the allocation of resources for non-native MS units are not exceeded. By way of example, a hybrid network 500 may decide that up to 20% of the radio bandwidth of the private network may be allocated to non-native handsets while at least 80% of the
55 radio bandwidth resources should be allocated to native MS units. The ability to govern the sharing of resources between native handsets and non-native handsets advantageously ensures that MS units that are native to the hybrid network are not overwhelmed by an excessive influx of non-native
60 handsets into the location area.

This capacity to control the amount of resources also extends beyond just the simple kind of control with fixed radio resource RR allocation.

In a system that meets the requirements of claim 7, it is possible to achieve the advantage that the amount of allocated radio resources can be increased or decreased at the private branch exchange 11 during a communication, as mentioned in Applicant's originally-filed specification:

Preferably, the resource allocation is dynamically updated i.e. the amount of resources allocated to a corporate radio terminal 131, ..., 133 can be increased or decreased at the initiative of private branch exchange 11 during a communication.

Since the resource control in the PBX is so powerful, it is advantageously supported by the messages sent to the handsets informing them about the resources allocated to them. Those messages are not needed in the Lu or Chawla references, and these applied references certainly do not contain any such teaching.

Comments focused on the express language of the claims: In rejecting independent claim 7 under 35 U.S.C. §103(a) as being unpatentable over the combined teachings of Lu and Chawla, the Examiner asserted that the required base station reads on base station (BTS 210) in Lu. The Examiner wrote on page 9 of the Office Action:

Lu discloses a base station (210) adapted to be coupled to a private branch exchange (206) comprising a TRX module (530) which reads on the claimed 'module' for sending data which reads on the claimed "messages" to corporate radio terminals (212)...(see col. 19, lines 34-38, 61; col. 20, lines 1-27; Figs. 3A-4A, 7-9)

Regarding the TRX module 530, Lu teaches that "Fig. 8 also shows a TRX module 530 which is coupled to both TDM bus 522 and VME bus 520." (col. 19, lines 61 and 62) Also, Lu teaches that "TRX module 530 represents a transceiver for processing outgoing data to MS units and incoming data from MS units. TRX module 530 is explored in greater detail in Fig. 9...In one embodiment, processing is distributed in CCPU module 526, TRX module 530, and trunk module 532. In a typical chassis, there may be multiple TRX modules 530 and trunk modules 532. TRX module 530 has the capability to send and receive voice or data traffic among MS units, performs the switching function between local MS units, or permits the data stream from one MS unit to be sent via TDM bus 522 to an appropriate interface for communicating with a terminating phone set that is external to the private cPBX network [emphasis added]." (col. 20, lines 1-17) Further, Lu teaches that "In one aspect of the present invention, TRX module 530 advantageously includes distributed intelligence and processing. In one embodiment, TRX module 530 comprises two main sections: an RF section 550 and a DSP section 552. In this implementation, RF section 550 represents a module which is coupled physically to DSP module 552. A[s] such, TRX module 530 occupies two slots in the common backplane of the inventive modular system chassis." (col. 20, lines 51-58)

Applicant submits that Lu provides no disclosure regarding the base station (BTS 210) nor the TRX module (530) that renders unpatentable a base station comprising a module for sending messages to corporate radio terminals continuously indicating the amount of resources each of said corporate radio terminal is allocated. As seen above, the TRX module 530 has the capability to send and receive voice or data traffic among MS units (phones that may or may not be in cPBX network), performs the switching function between local MS units, or permits the

data stream from one MS unit to be sent via TDM bus 522 to an appropriate interface for communicating with a terminating phone set that is external to the private cPBX network.

Unlike the position maintained by the Examiner, Lu does not teach or suggest that the TRX 530 sends **messages** to the corporate radio terminals and even the Examiner realizes that the alleged messages in Lu do not continuously indicate the amount of resources each of said corporate radio terminal is allocated. Any “data” (voice or data traffic) sent among the MS units does not teach or suggest sending “messages” to the corporate terminals continuously indicating the amount of resources each of said corporate radio terminal is allocated. Applicant respectfully submits that the Examiner may not arbitrarily select the TRX 530 as allegedly sending **messages** when “data” of Lu does not meet the explicit recitations of claim 7.

Nevertheless, the Examiner concedes that “Lu does not specifically disclose having the features continuously indicating the amount of resources each of said corporate radio terminal is allocated, said amount of resources being determined by said private branch exchanges.” (Office Action, page 9) In an attempt to compensate for the deficiencies of Lu, the Examiner applied Chawla.

With regard to Chawla, the Examiner maintains that Chawla “discloses the feature continuously (e.g., automatically and dynamically) indicating the amount of resources each of said corporate radio terminal (210) is allocated, said amount of resources being determined by said private branch exchange (201-1) (see col. 10, line 65 - col. 11, line 34; col. 11, lines 55-62; col. 12, lines 6-25; col. 13, lines 6-20; Figs. 3-5, 7), where the system automatically and dynamically adjusts the amount of bandwidth for communication sessions according to situations such as times or events in which each terminal is provided with allocation information.” (Office Action, page 10)

The invention in Chawla is based primarily on an improved version of a reservation protocol named the Resource ReSerVation Protocol (RSVP). “As its name implies, computer hosts can use RSVP to request a specific QoS from the network on behalf of an application data stream. When a host needs bandwidth, the host transmits an RSVP bandwidth reservation request message on the network along the path of the session of data communications [emphasis

added].” (col. 2, lines 50-55) According to the suggested combination and based on the teaching of Chawla, the host (computer) or MS unit (phone) sends a message to the network requesting an RSVP bandwidth reservation so that two or more hosts can communicate with each other via the network. The fundamentals of the RSVP protocol in Chawla are contrary to any TRX 530 allegedly sending **messages** to the MS units in Lu, according to the combination suggested by the Examiner. Moreover, claim 7 recites the base station...comprising a module for sending messages to corporate radio terminal. Further, having a host (computer or phone) make a one-time request of the network (data communications devices such as in col. 1, lines 16-19) is unlike the recitations of claim 7, even though Chawla discusses ways of changing the bandwidth allocation based on certain events or times. Following the logic of the suggested combination, instead of having a base station send messages to the corporate terminals, Chawla would have corporate terminals send RSVP requests to the base station (of Lu) continuously indicating the amount of resources the corporate terminals are allocated. However, such a combination is unlike the recitations of claim 7.

Now, with regard to *automatically and dynamically* discussed in Chawla and identified by the Examiner as teaching sending messages to corporate radio terminals...continuously indicating the amount of resources each of said corporate radio terminal is allocated, Chawla teaches “By **dynamic**, what is meant is that a data communications device that is currently transferring data associated with a session of data communications need not break the session in order to adjust or modify bandwidth. [In older RSVP protocols, the communication between two computers had to completely discontinue anytime bandwidth allocation needed to be changed. See col. 3, lines 4-12 and col. 4, lines 5-14] The bandwidth allocation information itself specifies amounts of bandwidth that are to be reserved, for example, for specific sessions of data that pass through the devices forming the network. The bandwidth allocation information can also specify future bandwidth allocation modification information which defines specific times (or events), the occurrence of which cause the amount of reserved bandwidth in the devices in the network to be **automatically** changed or adjusted. Preferably, the bandwidth allocation information, including the future bandwidth allocation modification information, exists in the

form of extensions to a bandwidth reservation protocol, such as the Reservation Protocol (RSVP). [emphasis added]” (col. 11, lines 4-20)

Therefore, the terms *automatically and dynamically* in Chawla are not as the Examiner posits but are with respect to ideally being able to send only a **single** RSVP request to the communication devices, in which the RSVP request includes the bandwidth allocation information that can be based on certain times or events where the bandwidth allocation information can change the allocation of bandwidth without having to discontinue the session (connection) between the hosts (computers) and without having to take the time to send another RSVP request to the communication devices. In support of this point, Chawla states “Generally, the invention thus provides a mechanism to allow a data communications device to make bandwidth allocation adjustments **automatically, without requiring additional bandwidth reservation messages for each required change in bandwidth**. Extending this concept, the invention allows data communications devices to implement and accommodate network business cycles (i.e., changing network requirements)...based on predetermined events...or predetermined times...For example, if certain times of the day require certain bandwidths to be reserved in a recurring pattern or sequence, the invention allows a data communications device to be configured once with this information and the device can automatically reserve the appropriate amounts of bandwidth at those times of the day, thus allowing the network to automatically be adapted to the needs of a business cycle [emphasis added].” (col. 11, lines 35-54) The idea behind the invention in Chawla is to send one and only one (if possible) RSVP request to the communication devices. It definitely does not stand for or represent sending continuous messages. Surely, the invention of Chawla is in direct contradiction to a base station sending messages to corporate radio terminals continuously indicating the amount of resources each of said corporate radio terminal is allocated, as recited in claim 7.

Based on the suggested combination, *arguendo*, it is clear that the combined teachings of Lu and Chawla would have corporate terminals sending messages to the base station (or module) and that only a single message would be sent by the corporate terminals to the base station.

In view of the extensive support provided above from the references, Applicant submits that the combination suggested by the Examiner does not teach or suggest the explicit recitations of claim 7. In fact, the suggested combination (of base station BTS 210 and TRX module 530 of Lu and the modified RSVP protocol of Chawla) is contrary to the explicit recitations of claim 7, and therefore, as set forth above, the combined references do not support the position of the Examiner.

For at least the foregoing reasons, the combined teachings of Lu and Chawla, taken as a whole for what they would have meant to a skilled artisan, fail to anticipate or render obvious the explicit recitations of claim 7. Additional, untaught modifications would have been required. Applicant therefore respectfully requests the Examiner to withdraw this rejection of independent claim 7.

The rejection of independent claims 1 and 2

For analogous reasons to those set forth, above, with respect to the rejection of independent claim 7, Applicant respectfully submits that the combined teachings of Lu and Chawla fail to teach or suggest that said base station comprises means for continuously sending a message indicating to said corporate radio terminals the amount of resources they are allocated, as recited in claim 1, and wherein said base station continuously sends a message which indicates to each of said corporate radio terminals the amount of resources it is allocated, as recited in claim 2. Therefore, the 35 U.S.C. § 103 rejection of claims 1-9 should be withdrawn.

Conclusion and request for telephone interview

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Applicant herewith petitions the Director of the USPTO to extend the time for reply to the above-identified Office Action for an appropriate length of time if necessary. Unless a check is attached, any fee due under 37 U.S.C. § 1.17(a) is being paid via the USPTO Electronic Filing

AMENDMENT UNDER 37 C.F.R. § 1.116
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System (EFS). The USPTO is also directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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